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MAGAZINE

Dec 2011 - Feb 2012 Edition 57

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Cover picture

Courtesy Esmee Vanwijk



Editorial

It is very reassuring to have so much support for the State Government's Antarctic Sector Development Plan, but it was interesting to note the Shadow Minister's challenge: What name will best brand our Antarctic Gateway? Three names are used in the Plan, so let's hope the best one is chosen soon.

Mawson centenary events are continuing while this edition is being printed, and once again, thanks must go to Paul Cullen for his comprehensive overseeing and the volunteers assisting with every event.

In this edition, we welcome the first contribution from Hobart's new Lord Mayor, Damon Thomas. Like Rob Valentine, the previous Lord Mayor, he is keen to support Antarctic activities in our Antarctic community.

I would also like to thank Julia Jabour for her Iceland article and Mike Coffin from IMAS, who provided such interesting photos of the IMAS site.

In my opinion, those objecting to an institute being built on Princes Wharf are not considering the extra international attention it will bring to Hobart. Visiting researchers are also tourists, who enjoy buying quality goods, dining out and drinking good coffee too!

I wish everyone a safe and happy summer break and look forward to the next round of centenary events, for Roald Amundsen.

Anthea Wallhead

Editor, Ice Breaker

ICE Breaker MAGAZINE

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Thanks to Klaus Arne Pedersen, Sue Halliwell and Frederique Olivier for their permission to use their Antarctic photographs.

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This stamp cover is Australia Post's first issue about Mawson, focussing on the departure of the Aurora and its journey to the Antarctic via Macquarie Island. John King Davis was the Master of Aurora and second in command of the Australasian Antarctic Expedition, which departed Hobart on December 2, 1911.

Recording Amundsen

“Amundsen’s starting place for his dash to the Pole: a playground for Whales

Drawn for “The Illustrated London News” by George E. Maston, of Sir Ernest Shackleton’s Expedition [March 16, 1912 - 394].

Where “Framheim” was set up on the edge of the Great Ice Barrier: the Bay of Whales, chosen to be the base of the Amundsen Antarctic Expedition.

In a dispatch dated “Framheim, February 9th 1911” (we again quote the “Daily Chronicle”), Captain Amundsen said: “The great bay (The Bay of Whales), running south-west into the Barrier, which I have chosen as the base of an expedition towards the South Pole, has been observed not only by Ross and Borchgrevick, but also by Scott and Shackleton.” It was in this bay that the “Fram” was found when Captain Scott’s ship, the “Terra Nova,” came across her. On the edge of the Great Ice Barrier there Amundsen set up his winter quarters.



“Framheim” – those quarters, in a word, from which he and his comrades made their dash to the geographical South Pole, a journey of some 1400 kilometres, covered at an average speed of twenty-five kilometres a day. Sir Ernest Shackleton, in his book, “The Heart of the Antarctic,” says: “We had passed Borchgrevink’s Bight at 1 a.m., and at 8 p.m. were well past the place where Barrier Inlet ought to have been. The inlet had disappeared, owing to miles of the barrier having calved away, leaving a long, wide bay, joining up with Borchgrevink’s Inlet, and the whole was now merged into what we called the Bay of Whales.” It gained this name from the fact that it was a veritable playground for whales. In a note by Mr. James Murray, in the same book, it is said: “This bay... was teeming with all the familiar kinds of Antarctic life: hundreds of whales, killers, finners, and humpbacks, were rising and blowing all around.”



Locating an end of the Earth's axis: Finding the South Pole

Drawn for “The Illustrated London News” by Frederic de Haenen [March 16, 1912 -393].

How Captain Amundsen proved that he had reached the geographical South Pole: using a sextant and artificial horizon in the Antarctic.

Our illustration shows in graphic manner how the explorer determines his position by means of sextant and artificial horizon. In his description of his expedition, in the “Daily Chronicle,” Captain Amundsen said: “On December 16 ... we camped. It was an excellent opportunity. There was a brilliant sun. Four of us took observations every hour of the day’s twenty-four. ... This much is certain: we observed the position of the Pole as close as it is in human power to do with the instruments we had - sextant and artificial horizon. The place circles in with a radius of eight kilometres.” It should, perhaps, be said that an artificial horizon has to be used in connection with the sextant when the natural horizon is hidden. The precise manner in which the sextant is used is described and illustrated on the “Science Jottings” page of this number of our paper.”

Thanks to Klaus Arne Pedersen for providing these postcards and copies of information from The Illustrated London News.



David O'Byrne

Minister for Science,
Innovation and
Technology

Antarctic priorities

On Friday 21 October this year, I had great pleasure in officially launching the State Government's new Antarctic Sector Development Plan which was developed in response to our determination to grow Tasmania's Antarctic sector.

The plan, titled Developing Tasmania's Antarctic sector: A vibrant industry in a global market, was launched at a Hobart City Council reception to mark the opening of the 2011-12 Antarctic season.

The Antarctic sector is a big priority for the Tasmanian Government. It is a significant part of our history and culture, as well as an important component of our economic future.

The Government is determined to help grow this sector, not rest on our laurels. The new Economic Development Plan, launched in August, identifies the Antarctic and Southern Ocean sector as one of Tasmania's key growth industries.

The Economic Development Plan focused on identifying and understanding Tasmania's competitive advantages and capitalising on these. That gives our key industries the best chance of targeting the right markets, attracting new investment, and creating the new jobs of tomorrow.

For the Tasmanian Antarctic sector, those advantages include:

- Hobart being one of only five international gateways to Antarctica, and the only one which provides ready access to the Southern Ocean, Macquarie Island and the vast East Antarctic region
- Hobart having a unique concentration of world-class research institutions, international Antarctic secretariats, and specialised cold-climate goods and service suppliers located in the one city
- being the home of the Australian Antarctic program, and hosting the French Polar Institute's Antarctic gateway program for more than 50 years

- the Antarctic sector already generates more than \$182 million each year, and employs more than 840 people.

Some of the key initiatives in the Antarctic sector plan include:

- ensuring port facilities can service existing and potential Antarctic shipping requirements. The recent announcement that TasPorts will refurbish Macquarie Wharf Number 2 for polar vessels and cruise ships means a key result for the sector will soon be achieved
- further developing opportunities with the air link between Hobart and Antarctica
- exploring specialised cold-climate career and vocational opportunities, to help meet skills shortages
- comprehensively branding and promoting Tasmania's polar capabilities
- developing new markets for Tasmania's Antarctic goods and services.

The University of Tasmania's decision to build a new \$45 million waterfront home for the Institute of Marine and Antarctic Studies (IMAS), further demonstrates the strength and confidence in the future of this sector.

The State Government's commitment to the sector was also demonstrated in the 2010-11 State Budget which featured a \$1.27 million investment in Antarctic and Southern Ocean science and research, over the next four years.

I am truly excited to be the Minister responsible for developing our Antarctic sector at this time; the potential is enormous, the rewards are great. I am determined to see Hobart maintain and expand its present role as a key location in the on-going national and international development of the Antarctic sector.

The Antarctic Sector Development Plan is available at www.antarctictasmania.com



Michael Ferguson

Shadow Minister for
Science, Innovation and
Technology

Shadow Minister for
Education and Skills

Earning opportunities

Tasmania's Antarctic sector is a neat blend of industry, the research community, our air and sea port assets together with the natural and physical sciences. In each of these elements we find creative, passionate people committed to the proud Antarctic tradition of small-footprint exploration.

It is the innovation and collaboration of industry, the research community and global interests which have resulted in Tasmania earning the status of an international gateway to the Antarctic.

The Liberals are firmly focused on growing this sector in a way that will benefit and add value to the lives of Tasmanians. While state policies, such as the Antarctic Sector Development Plan to support the sector, are vitally important, government's role is to facilitate and foster growth, rather than drive it itself.

The document identifies that Tasmania is one of five international gateways to Antarctica and the only one which gives ready access to the Southern Ocean, Macquarie Island and vast East Antarctic region. This is a key strength which Providence gives – but we still need to watch our back. Other ports in places such as WA and NZ are looking for strategic advantage too. The government needs to work towards maintaining our waterfront precinct and growing our facilities to ensure we stay in the "top five".

Tasmania's proximity is our unchangeable physical advantage. That gives us our gateway. But our future vision should be focussed on being much more than a portal for the activity of others; rather we should lift our eyes to become a world centre of original Antarctic activity. While that journey is underway, there is much work to do.

We must continue to invest in our education system and science and research community as the practical levers to stimulate and attract Antarctic industries and research activities to achieve that.

Without doubt the UTAS's Institute of Marine and Antarctic Studies is a most exciting initiative. The construction of its \$45 million new home is welcome; but not central to what IMAS will do to boost Tasmania's strategic position. Having an integrated and focussed institute with such deep capacity I hope will see Tasmania claim world leader status in marine and Antarctic activities.

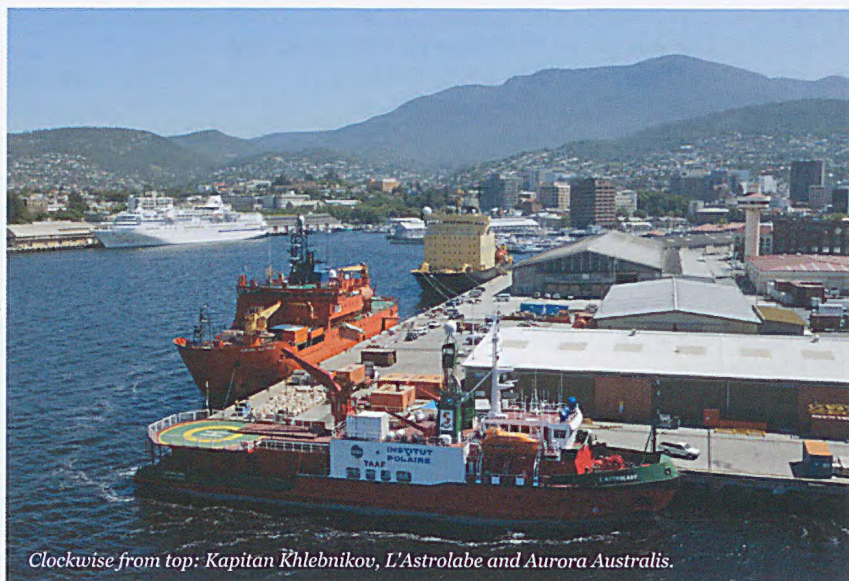
IMAS will not only inspire our young people to look even more enthusiastically to the sciences, but it will also foster skills growth and educational outcomes never seen in Tasmania before. This in turn will create a range of job and employment opportunities within our state.

IMAS should look to strongly engage the National Centre for Marine Conservation and Resource Sustainability as a close collaboration partner. This will allow IMAS to do a better job to sell itself as genuinely state-wide institute of our University.

In my view, the most important thing we can ask of the Antarctic sector is to never cease looking for new opportunities to collaborate both within the local sector and without. Deep, collaborative working relationships within the Tasmanian Antarctic sector will bring resilience and strength. Earning opportunities to insert Tasmania into national and international multi-centre projects will bring growth and repute.

Finally, a question to provoke a positive discussion. This occurred to me after noticing the (innocent) inconsistency in the way our gateway is described in the Development Plan. My inquiry is motivated by a desire to engage strategic assets across our state or even our nation; and how we then take our product to the world market. So, do we see (and do we want others to see) our gateway as being the Hobart Antarctic Gateway, the Tasmanian Antarctic Gateway or the Australian Antarctic Gateway. Discussion board at **www.michaelferguson.com**. No North v South please!

Antarctic Season Ships



Clockwise from top: Kapitan Khlebnikov, L'Astrolabe and Aurora Australis.

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Spirit of Enderby and Hovercraft in the Ross Sea
Photo: Nuthan Russ

All these Antarctic ships were seen in Hobart during, or shortly after, the Mawson Celebrations.

Some participated in the flotilla before departing for Antarctica.

Thanks to Klaus Arne Pedersen and Antarctic Tasmania for images and stamp covers.

AIR POLAROGRAMME
BY AIR MAIL PAR AVION

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Akademik Shokalskiy
Captain Igor Kiseley
"Akademik Shokalskiy"





John Brennan
Chairman, TPN

The sector is on a winner

The last twelve months have been positive for the sector. While we are continually bombarded by a plethora of seemingly negative news articles about political struggles, interest rates, a lack of business confidence, tax reforms and international monetary woes, to mention a few, we should, I believe, take a deep breathe at times and look for what is good, what is working in our own backyard and embrace it for the future and build upon its success.

Recently Economic Development announced the launch of a plan for the Antarctic Sector. This plan is endorsed by the TPN and represents input from all the key sector stakeholders. To my mind the sector is on a winner because we are realising the alignment of essential ingredients for success. This does not mean that the all the work is done and we will reap immediate benefits.

Far from receiving instant gratification we will all be required to attend to many tasks ahead, consolidate and grow the sector and follow the "compass" (the Antarctic Sector Plan and our own plans) we have committed to. So for all those who have a role to play in the sector I urge you to please join with the TPN and make the opportunities happen.

Hobart City Council has done it again with the launch of the 2011/12 Antarctic season being formally celebrated at the Town Hall on Friday 21st October. It was very gratifying to note the cross section of guests including many AAD expeditioners and representatives from the French Antarctic program (IPEV).

It was a pleasure to MC the function and I was particularly pleased to take the opportunity to thank the retiring Lord Mayor, Rob Valentine, for his long term dedication and commitment to the Antarctic sector. Rob Valentine set the scene for local government and local governments adoption of embracing all things related to Antarctic business and science. We can only trust that the sector will enjoy the same level of support from HCC in years to come.

Thank you to the organizers for another wonderful Antarctic season opening and all the best to Rob Valentine for his future career.

As a wrap up, I wish all 2011/12 Australian and French expeditioners every success for a safe and productive season. For all the readers of Ice Breaker the very best for the remainder of 2011 and the celebration of the Mawson centennial date, 2nd December.

For Antarcticans who made the most of Mawson celebrations:

November 30

- Royal Society of Tasmania's Mawson Symposium at the Dechaineux Theatre, Hobart
- Evening reception at Government House

December 1

- Second day of Mawson Symposium
- Peter Fitzsimons' Mawson book launch
- Official opening of Traversing Antarctica: the Australian Experience exhibition by Hon Tony Burke, Minister for Sustainability, Water, Population and Communities, at the Mawson Pavilion
- Mawson's Huts Foundation's Sir Douglas Mawson's Centenary Dinner at the Grand Chancellor Hotel

December 2

- On board the ferry Cartela or other vessel taking part in the flotilla on the Derwent River to commemorate the centenary of Mawson's departure for Antarctica
- Invited guest at the Governor's Marquee on Regatta Point to observe the flotilla.
- Visited the Traversing Antarctica exhibition at TMAG.



Denzil Miller

Director, Antarctic
Tasmania, Science and
Research

Norwegian links

October has been a monumental month for Antarctic Tasmania, Science and Research.

The 2011/12 Antarctic season was launched on 21 October with a function at the City Hall. This coincided with the release of the Antarctic Sector Development Plan (ASDP) by Minister O'Byrne. As a blueprint for the future of all things Antarctic in Tasmania, the ASDP not only identifies and prioritizes key items to grow the Antarctic Sector, it also provides a manifesto to underpin the future of what is a vibrant industry in the global marketplace. A high level of support and appreciation for the Plan has been forthcoming and it clearly fulfils key needs identified by the Tasmanian Economic Development Plan launched in August. A bright future for Tasmanian Antarctic activities is definitely blowing in the wind!

As one of the largest international organisations domiciled in Australia, the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) celebrated its 30th Meeting in Hobart on 24 October. This celebration also saw the launch of the "Amundsen Challenge" – an essay-writing initiative being sponsored by the Norwegian Embassy in Canberra.

The Challenge aims to spread knowledge about, and promote contemporary interest in, the Antarctic and Antarctica's importance. As part of the Norwegian Polar Pioneer Year (2011) and the Australian Antarctic Centennial Year (2011-2012), the Challenge is open to young people, aged 12 to 18 years, from Australia and New Zealand. The winners will be selected on the basis of the candidate's knowledge and understanding of the key points below. In particular, the submissions will be adjudged in terms of their effectiveness in spreading interest in, and awareness of:

- Roald Amundsen's achievements and their importance today;
- Norway, Australia and New Zealand's joint history in Antarctica;

- Norwegian, Australian and New Zealand current cooperation in the Antarctic;
- Norwegian, Australian and New Zealand cooperation on climate change issues, and
- Antarctica's importance in understanding and dealing with climate change.

As member of the judging panel, I look forward to reading all the Challenge submissions, as well as to the supporting role that Antarctic Tasmania, Science and Research will play when the winners are announced in Hobart in March next year.

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Damon Thomas
Lord Mayor

Ongoing collaboration

It is with great pleasure that I write my first Ice Breaker article as the new Lord Mayor of Hobart and I wish to take this opportunity to confirm my support for the Antarctic and Southern Oceans sectors going forward.

The Hobart City Council was pleased to host its annual Antarctic Season Reception on October 21 in the Town Hall for Antarctic expeditioners, scientists and personnel to celebrate the beginning of this year's Antarctic season. As a Council, we want to celebrate the success of Australia's Antarctic program based on our city and welcome other nations to use Hobart as a base for their operations.

The reception aims to highlight the importance of the Antarctic sector and help to establish a greater awareness of Antarctica in the minds of the Tasmanian community.

At this year's reception we welcomed Australian Antarctic expeditioners, personnel from the Australian Antarctic Division, Department of Economic Development, Tourism and the Arts, Institute of Marine and Antarctic Studies (IMAS) as well as members of the Tasmanian Polar Network. We also hosted personnel from the French Antarctic program, who operate from our port.

The Director of the Australian Antarctic Division, Dr Tony Fleming, and Mr Patrice Godon, Head of the Polar Logistics Department at Institut Polaire Francais both provided an outline of their upcoming program for the season.

With so many key players in the room, the Minister for Science, Innovation and Technology, Minister David O'Byrne, took the opportunity to launch the State Government's Antarctic Sector Development Plan.

The Council welcomes the Antarctic Sector Development Plan as a collaborative effort involving all of the sector's key stakeholders. The Council will play a key role in the implementation of several initiatives detailed in the Plan, including:

- Raising awareness of Hobart as an Antarctic gateway;
- Growing the number of Antarctic based events and conferences hosted in Hobart;
- Maximising Tasmania's promotion and networking opportunities arising from Hobart's upcoming Antarctic related conferences and events; and
- Other initiatives to attract East Antarctic nations to Hobart.

By hosting the Antarctic Season Reception, we wish to bring together the sector's stakeholders to facilitate ongoing collaboration and investment in the future of our Antarctic sector.

The reception is important in strengthening the ties between the community and the Antarctic sector. We as a Council hope to reinforce the importance of the Antarctic sector and the work that everyone does.

Madrid protocol renewal

The 20th anniversary of the signing of the Madrid Protocol, which banned mining in Antarctica until at least 2048, was celebrated at AAD on 3-5 October this year.

A conservation effort is now being led by original signatories, Australia, France and Spain, for the 14 Antarctic Treaty nations that are not signatories to the Protocol, to sign up before the next Antarctic Treaty meeting in Hobart in June 2012. The Malaysian Cabinet has recently decided to do so.

Countries such as China, Russia and South Korea were pushing to begin oil and mineral exploitation, while the original signatories were committed to maintaining Antarctica as a nature reserve for scientific research.



100° of separation - but not so very different

Akureyri is in Iceland, at almost 66° North. Hobart is about 42° South of the Equator. While there are more than 100° of separation, I am surprised to find that the two places are not so very different. Akureyri is a small town by anyone's standards, with only around 18,000 people (about the size of Kingston). The people are friendly, although initially reserved. But if you keep smiling at them, eventually they will smile back, say hello, then try to have a conversation with you. Most people here speak English, and this is a huge relief because Icelandic – although an old language, soft and gentle-sounding – is almost impenetrable to a foreigner!

It might look isolated on the map but Akureyri is only a 45-minute plane flight from Reykjavik. And there are half a dozen flights a day to and from the capital. I flew here in a Dash-8 – the same plane I might travel in from Sydney to Canberra.

It is a picturesque town on a fjord, surrounded by snow-capped mountains and bizarre rock formations – relics from past volcanic eruptions. It is not unlike Hobart in many ways. It is Autumn here and each day brings surprising weather. One day it is cold (0° or so) with a chill wind blowing straight off the Arctic, and snowing heavily, then it is warm-ish (around 12°) and the snow melts.

The locals are preparing for the transition into winter by replacing their 'summer' tyres with steel-studded 'winter' ones which provide their cars with traction on icy roads.

I am teaching a 10-day intensive course on Antarctic Law and Policy in the Master of Polar Law at the University of Akureyri. The university was established in 1987, in part to try to keep young people in the region. Icelanders pride themselves on the high level of education among their community, and rightly so. Students are not eligible to enter university until they are 20; they have 10 years of primary school and 4 years of high school beforehand.

The students in my class come from 10 different countries, and despite it being a law/policy course, less than half have law degrees. The remainder have a range of social sciences degrees – nevertheless, all are interested in polar matters. Surprisingly, this is the first time Antarctic law and policy has been taught in the Polar Law Program.

The 2008 financial problems in Iceland threatened to end this Program, and in fact it did not run in 2010, but thanks to support from a generous local benefactor, it can now continue.

The benefactor, a retired businessman and commercial pilot, told me that he supports the Polar Law Program at the university because, among other things, he wants young Icelanders to learn how to represent Iceland and Icelandic interests in the international community.



The moon over autumn colour early one morning in Akureyri.

Iceland is about to decide by referendum whether or not to become a member of the European Union, which is a contentious topic because of, among other things, the EU ban on seal hunting.

All the young people in the Polar Law course are tomorrow's diplomats, law- and policy-makers, for the Arctic at least. They are curious to see what achievements from Antarctica might be applicable to circumstances in the Arctic.

We had some VIPs visit during the past two weeks, including the benefactor, Arngrímur B. Jóhannsson and Minninguaq Kleist, the Head of Office of the Department of Foreign Affairs in Greenland. We discussed education in Greenland, and the exciting times ahead for young people as their resource rich country moves towards independence from Denmark. Minninguaq has a degree in philosophy, which is a nice thing to have if you are involved in drafting your country's first constitution.

Julia Jabour and Halldór Jóhannsson, Managing Director, Arctic Portal.



Back Row: Leonel Metuge, Cameroon (standing); Sitting (L) to (R): Tina Price (Nunuvut, Canada), Federica Scarpa (Italy), Rachael Johnstone (Iceland), Denise da Silva (USA), Monika Margrét Stefánsdóttir (Iceland), Stefan Holitschke (Germany).

Middle Row: Irina Zhilina (Russian Federation); Tiantian (Bianca) Zhang (China), Ulrika Nordblom (Finland), Jennifer Lail (USA), Hjalti Ómar Ágústsson (Iceland), Arnar Þór Arnarsson (Iceland).

Front: Julia Jabour and Stefán B. Sigurðsson (University Rector).

The Polar Law Program Director, Ágúst Þór Árnason, who arranged for my trip to Akureyri, and who is part of the team re-writing Iceland's Constitution, visited with Dr Stefán B. Sigurðsson, University Rector (pictured above with the students). Later over lunch we discussed continuing and potential new areas of collaboration between our institutions.

Akureyri is also home to the Arctic Portal (www.arcticportal.org) – the electronic gateway to the Arctic. It was the brainchild of current Managing Director, Halldór Jóhannsson.

We met to discuss areas of mutual interest, such as making Antarctic education available online to Northern students through the University of the Arctic, which the Portal hosts.

The Arctic Portal has had great success bringing disparate groups together under the one umbrella and it now has access to European Union funds for research projects through becoming partners with organisations making applications.

It has been a terrific experience working with such a diverse group of students and discussing the similarities and differences between the Arctic and the Antarctic. I'm sure I've learned as much as they have. I have seen the most spectacular Aurora Borealis (and got a photograph!), swum in an outdoor pool surrounded by snow, eaten some interesting things (don't ask...), met some wonderful people and made good business contacts for the future. It's getting much colder now; the last snowfall didn't melt – it froze! I'm leaving in a couple of days and I'm looking forward to summer, but I will also look back with great fondness at my time here in this small town just below the Arctic Circle.

Julia Jabour

Leader - Ocean and Antarctic Policy Research Program, IMAS





IMAS Underway

Construction of the new \$45 million Institute for Marine and Antarctic Studies (IMAS), an institute of the University of Tasmania, on Hobart's waterfront has begun. IMAS aspires to be a leading global institution for temperate marine, Southern Ocean and Antarctic research (see 'Imaginative IMAS' in the June-August 2011 issue of *Ice Breaker*). Following an extensive planning and consultation process, construction is expected to take about 18 months, with an anticipated completion date in mid-2013. Contractor John Holland/Fairbrother completed demolition of the Princes Wharf No 2 shed in October 2011, and the University plans to begin construction of the new building in early 2012.



University of Tasmania Vice-Chancellor Prof Peter Rathjen and Tasmania Premier Lara Giddings announcing construction of the new IMAS building at the Princes Wharf No 2 site in October 2011.

Roof demolition following removal of hazardous material from the Princes Wharf No 2 shed.





Skeletal roof of Princes Wharf No 2 site prior to dismantling



Roof trusses being cut apart.



Princes Wharf No 2 wall demolition.



Demolition of Princes Wharf No 2 shed and debris removal complete.

For more information on IMAS, visit the IMAS website (www.imas.utas.edu.au).

For further information on the progress of the IMAS building project, visit the project website (<http://www.utas.edu.au/major-projects/imas-building/the-site>).

All photos courtesy of John Holland/Fairbrother and University of Tasmania.

Article courtesy Mike Coffin, Executive Director, IMAS.

Demolition debris removal.





Polar News

Procurement event

Members of the Tasmanian Polar Network met AAD procurement staff on September 2 this year. A TPN display provided AAD staff with information about the Network's capabilities and AAD provided information about tendering for their requirements.

International reception

A TPN display was also included at the reception for the delegates attending the IHO Hydrographic Commission on Antarctica on October 4. Members from over 20 countries met to develop co-operation amongst those involved in hydrographic surveying, marine cartography and nautical information.

Newspaper action

To acknowledge the Mawson centenary, the Mercury newspaper produced an information kit for teachers and eleven issues of the Mercury contained a series of booklets for students to use. Entitled 'Antarctica: In Mawson's Footsteps', the workbook contains a wide range of Antarctic-related topics, posters and stickers.

In August next year, the Mercury offices in Macquarie Street will be moving to Salamanca Square, by coincidence to the original Antarctic Adventure building, which now houses Smolt restaurant on the ground floor.

The Mercury will be on the first floor which will provide more space to develop a range of media products in the future. Unfortunately, Antarctic Adventure no longer exists, although some of its contents were moved to the TMAG's Islands to Ice display. Antarctic Tasmania, which used to be next door, has been relocated to the State Government offices in Elizabeth Street.

More protest

Anti-whaling activists from Sea Shepherd will track Japanese whalers again this summer. 'Operation Divine Wind' was launched in October and 100 volunteers aboard Sea Shepherd ships will be disrupting any whaling activities in the Southern Ocean.

Archives Move

Hobart's office of the National Archives of Australia has moved from its site opposite TMAG in Macquarie Street. It is now collocated with the Tasmanian Archive and Heritage office at the State Library building, 91 Murray Street, Hobart.

Award congratulations

Stefan Stimson, of Metocean International Pty Ltd, has won the Tasmanian Export Finance and Insurance Corporation (EFIC) Small Business Award. Metocean is a TPN member and was established in 2006 and has already conducted operations over 30 countries, largely in the Australasian area.

Marine alliance

Conservationists attending the recent CCAMLR meetings have formed the Antarctic Ocean Alliance, which is made up of representatives from the World Wildlife Foundation, Greenpeace and the Antarctic and Southern Ocean Coalition. AOA wants the 19 bodies of water that surround the continent to be declared as marine reserves. Spokesman Steve Campbell said 10,000 species would be protected by the reserves, which are attracting more commercial fishing interests.

Northern Equal

For the first time, the Arctic ozone hole, five times the size of California, is matching ozone loss over Antarctica.

Polar station plans

South Korea plans to build a new base in Terra Nova Bay in 2012. The Koreans will ship supplies from Pusan to Lyttleton, near Christchurch, NZ, where their icebreaker, Araon, is based. Araon will ship the supplies to their new base, Jang Bogo, when required.

The twentieth Bulgarian expedition to the Antarctic set out in November this year, to research climate change, build four wind turbines and construct a new Christian Orthodox chapel at their base.

This new base will be less than 300kms from NZ's Scott base. However, NZ is planning a new base in the Ross Sea.

India's third Antarctic base continues to be constructed in the Larseman Hills area, between Quilty Bay and Thala Fjord. The station is expected to be fully operational by 2013.

China and Chile have signed a memorandum of understanding, in which they agree to co-operate in scientific studies by sharing logistic support for their researchers.

Antarctic Studies Grant

The Calvin Christian school in Kingston and the AAD have been awarded a \$25,000 grant to expand Antarctic studies classes. Co-ordinated by science teacher David Dieckfoss, Year 9 and 10 students visit AAD and spend time with scientists and tour facilities. One of the projects is the construction of a model biopile which would be displayed at the 35th Antarctic Treaty Consultative Meeting in Hobart in June next year.

Continued over >>

Antarctica's Heroes and Super Heroes

In this Antarctic Centennial Year we seek to remember the Antarctic exploits of the men of the heroic era and devour all that has been, and continues to be, written about them. Foremost in our minds is of course Douglas Mawson ("our" Dougie) and all the men who worked with or travelled with him, but we also revere Roald Amundsen and Robert Scott who battled it out for the first to the Pole. We also remember and pay tribute to other Antarctic heroes of that time – Shackleton, Charcot, von Drygalski, Bruce, Borchgrevink, Nordenskjöld, Shirase, Filchner and Bagshawe and all who expeditioned with them.

But there is another group of heroes who have made it to Antarctica, sometimes they are referred to as Super Heroes. Amongst these are –

- **Tarzan** [Flight from Pellucidar; ERBZine 3486, 2000]
- **Batman** [Antarctic Nightmare by Doug Moench, features his adversary The Penguin; Detective Comics #541, 1984]
- **Justice League of America** [Tower of Babel Part 3 Protected by the Cold (Antarctica); DC Comics #45, September 2000] and [Justice League Antarctica; DC Comics Annual #4, 1990]
- **Superman** [The Death of Antarctic City: Return to Krypton Part 4 by Joe Kelly; DC Action Comics #776, April 2001]
- **Spider-Man** and Ka-Zar, Lord of the Hidden Jungle [Slaughter in the Savage Land by Len Wein; Marvel Team-Up, Marvel Comics V1 #19, March 1974]
- **The Sub-Mariner Prince Namour** – [TORG - The Antarctic Abomination; Marvel Comics, Vol 1, No 55, November 1972]
- **Phantom** - [Mission to Antarctica, #1164; Frew Publications 1997]

On 18 October, in the Channel 10/ TDT episode of **NCIS** (Naval Criminal Investigative Service) "Enemy on the Hill", Special Agent Gibbs is relaxing at home reading when there is a knock on the door. He puts his book down – Alfred Lansing's 'Endurance: Shackleton's Incredible Voyage'.

Thanks to Gordon Bain for revealing some of his diverse Antarctic library.

TPN Committee members 2011-2012

- Chairman - John Brennan, Brennan Environmental
- Senior Deputy Chairman - Peter Fewkes, William Adams
- Deputy Chairman - Richard Fader, Tasmanian Shipping Supplies
- Secretary and Public Officer - Karen Rees, Tasports
- Treasurer - Kelvin Michael, IMAS
- Committee - Anthea Wallhead, Icewall one
- Committee - Steve Kotcharian, HIAPL
- Committee - Rob Harman, SKM

No identity loss

UTAS and the Australian Maritime College recently reaffirmed their commitment to integration, without altering AMC's status as Australia's leading institution for maritime training and research.

Southern Lobster

One of the creatures discovered by scientists during the Census of Marine Life is a 15cm, blind, hairy lobster-type species living near the thermal vents near where the Pacific Ocean meets Antarctica.

Rabbit reduction

There are now fewer than 30 rabbits remaining on Macquarie Island after the \$30 million eradication program. However, over 2000 sea birds have died during the three-year program. Full eradication should benefit up to 24 bird species.

Antarctic Blacks

- Black albatross:** generally known as the Sooty Albatross
- Black-backed albatross:** Wandering Albatross
- Black-backed gull:** Dominican Gull
- Black petrel or night hawk:** Cape Hen
- Black penguin:** Snares penguin
- Black-throated penguin:** Adelie penguin
- Black whale:** southern right whale
- Black fish:** caa'ing whale or long-finned pilot whale
- Black hake:** Patagonian toothfish
- Blackfin notothen:** crowned rock cod
- Blackfin icefish:** Scotia Sea icefish

[From Bernadette Hince's The Antarctic Dictionary]

Auditing the Earth's sea level and energy budgets

In a study that balances the sea-level rise 'budget' and explains the observed rise over recent decades, scientists have accounted for all the contributions to global sea-level rise

In work led by CSIRO Wealth from Oceans Flagship scientists Drs John Church and Neil White and published in mid-September in the American Geophysical Union's Geophysical Research Letters, the researchers also reviewed the related Earth's energy budget – confirming that 90% of the energy stored in the climate system resides in the ocean and this warming drives one component of sea-level rise.

The international research team found that the two largest contributions to observed sea-level rise since 1972 came from ocean thermal expansion (about 40%) and glacier melting (another 35%).

The remainder is from changes in ice sheets and terrestrial storage in reservoirs and extraction of groundwater from aquifers.

The new research resolves an issue evident in past International Panel on Climate Change (IPCC) Assessments in which the actual observed rise over recent decades was larger than the sum of contributions to sea-level rise, raising concern that the IPCC may have underestimated future rise.

"There are many factors contributing to sea-level rise, including changing groundwater storage, thermal expansion of the oceans, and melting glaciers and ice sheets," Dr Church said.

Closing the sea-level budget required accurate estimates of ocean warming, by far the largest storage of heat in the Earth's climate system.

"The sum of contributions has been less than the observed rise."



French scientist Dr Rosemary Morrow preparing to launch an expendable instrument measuring change in the heat content in the upper layers of the Southern Ocean. (CSIRO)

"To resolve this, we revisited the Earth's sea-level and energy budgets together using new and updated estimates of all contributing factors for the past few decades, and including a new estimate of groundwater depletion. This allowed us to balance the sea-level budget from 1972 to the present," Dr Church said.

He said that sea-level rise and ocean warming had continued to increase up to the present time, in concert with increasing greenhouse gas concentrations. However, aerosols have the potential to partially mask the effects on global temperature of balancing the Earth's energy budget. An increase in aerosol emissions, probably from developing countries, and moderate volcanic activity are inferred from the result.

Drs Church and White are CSIRO scientists at The Centre for Australian Weather and Climate Research, a partnership between CSIRO and the Bureau of Meteorology (BoM).

Their contribution was part-funded by the Australian Climate Change Science Program, a joint research initiative of CSIRO, the BoM and the Department of Climate Change and Energy Efficiency.

The research team included scientists from the Antarctic Climate & Ecosystem Cooperative Research Centre, Hobart, and Canadian, US, Dutch and British research agencies.

Ref: Geophysical Research Letters, doi:10.1029/2011GL048794.

Craig Macaulay

CSIRO

Mawson's Balaclava

A century in the making

Melbourne craftswoman Marion Wheatland, well known for spinning yarn outside Mawson's Huts at Cape Denison in Antarctica, has taken that same yarn and knitted a replica of the balaclava worn by Sir Douglas Mawson one hundred years ago. The yarn, spun in heatwave conditions of 0°C last Antarctic summer, took 6 hours to produce. Creating the pattern from a photograph of the original garment took a bit longer.

"The 1910 pattern that I have was not the one of the famous garment", Marion explained, "so, using the photograph supplied by the Mawson family, a pattern for the Balaclava had to be created, and then practiced, using yarn similar to the 'Antarctic' yarn." Looking out from the practice garment, Sir Douglas seems pleased with the result, although it was larger than a normal head size.

The finished blue Balaclava was auctioned at the Mawson Centenary Dinner, in Hobart on 1st December, 2011, exactly 100 years to the day that Sir Douglas' Australian Antarctic Expedition left on its journey to the Frozen South.

Expecting to raise a tidy sum, all Proceeds from the auction of the balaclava will go to the Mawson's Huts Foundation, for the restoration of the historic site.

www.SpinningYarninAntarctica.com



Above and below left: The practice balaclava (white) and the one for auction (blue).

Below right: Marion spinning the first balaclava at Mawson's Hut, under the watchful eye of a penguin.





Polar Publications

BOOK

The Sea: A Cultural History

By John Mack
Published by Reaktion
Price: \$49.95

A learned book in which the author examines the way all sorts of people, particularly sailors, interact with the oceans.

BOOK

A Hostile Beauty: Life on Macquarie Island

By Alistair Dermer and Danielle Wood
Published by Miegunyah Press
Price: \$69.99

Includes photographs and text describing Macquarie Island's landscape and its unique bird and animal life.

BOOK

Putting South Georgia on the map

By Alec Trendall
Published by Alec Trendall
Price: \$40.00

An account of Duncan Carse's three expeditions, the South Georgia Surveys, in 1951-2 and 1955/6, by the author, a geologist on the expeditions.

BOOK

Hubert Who?

By Malcolm Andrews
Published by Harper Collins
Price: \$32.99

A new book about Australian polar explorer, Sir Hubert Wilkins and his expeditions to the North and South Poles.

BOOK

Mawson's Forgotten Men: The 1911-1913 Antarctic diary of Charles Turnbull Harrison

Edited by Heather Rossiter
Published by Pier 9
Price: \$44.00

Includes extract from the diaries as well as sketches and paintings by Harrison, the only Tasmanian in Mawson's expedition team.

BOOK

Arctic Visions, Encounters at the Top of the World

By Stephen Gorman
Published by The art of the World
Price: \$30.00

Contains the author's photographs of the landscape, wildlife and people of the region.

BOOK

Arctic Obsession, the Lure of the Far North

By Alexis S. Troubetzkov
Published by Dundun
Price: \$24.00

Covers contemporary issues such as global warming and environmental, ecological and geo-political concerns in the Arctic region.

BOOK

Arctic Giants

By Neil Christopher, illustrated by Eva Widerman
Published by Inhabit Media
Price: \$17.00

A book that chronicles the giants of Inuit oral tradition.



Photo: Klaus Arne Pedersen

Ice Birds



Nellie Isobel Law

Lived: 1915-1990

Occupation: Teacher, artist, writer and wife of Philip Law.

Notable Achievements: First Australian woman to step onto the Antarctic continent on 1961, 62 years after the first Australian man. Designer of the ANARE logo.

Southern Polar Researchers



Susan Ingham

Occupation: Scientific secretary.

Notable Expeditions: Visited Macquarie Island in 1959, with Isobel Bennett (Ice Breaker No. 56), intertidal ecologist Hope McPherson and UK botanist Mary Gillham.



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30 1	November 2011- December 2011	Royal Society of Tasmania's 'Mawson 100 Years On: How things have changed' seminar. Hobart, Tasmania. For further details, see websites for AAD or Antarctic Tasmania.
1	December 2011	Mawson's Huts Foundation Dinner. Hobart, Tasmania.
2	December 2011	Opening of National Archives of Australia's 'Traversing Antarctica: the Australian Experience' exhibition. TMAG, Hobart, Tasmania.
2	December 2011	100th Anniversary of the departure of Mawson's expedition - commemorative flotilla on the Derwent River, Hobart, Tasmania.
3-19	December 2011	Finding Antarctica: Mapping the Last Continent exhibition. NSW State Library.
5	December 2011	25th International Congress for Conservation Biology. Auckland, NZ.
15	December 2011	TPN meeting. CCAMLR. 3pm. Hobart, Tasmania.
8-20	January 2012	Antarctica and the Southern Ocean sculpture exhibition by Stephen Walker. Hobart, Tas.
15	January 2012	Antarctic Sightseeing Flight. Historic commemorative flight from Melbourne to Commonwealth Bay, Antarctica.
7	March 2012	Centenary of Roald Amundsen arriving in Hobart and sending a telegram from the GPO to King Haakon VII of Norway, stating he was the first to reach the South Pole.
9-11	March 2012	International Polar Heritage Committee meeting and Open Conference, including events for the Amundsen Centennial. Hobart, Tasmania.
26	March 2012	Planet Under Pressure Conference - Ice Sheets and Glaciers in a Warming World. London, UK.
20-22	April 2012	Arctic Science Summit Week. Montreal, Canada.
22-27	April 2012	International Polar Year Conference. Montreal, Quebec, Canada.
22-26	April 2012	8th International Conference on Contaminants in Freezing Ground. Innsbruck University Centre, Obergurg/Tyrol, Austria.
4-15	June 2012	35th Antarctic Treaty Consultative Meeting. Hobart, Tasmania.

centenary.antarctica.gov.au

antarcticcentennial.tas.gov.au

www.environment.gov.au/about/media/events

www.scar.org/events

Antarctic Flights

15	January	2012			Antarctic Sightseeing Flight
31	January	2012	Airbus A319	FA01A,B	Hobart to Wilkins Aerodrome and return
7	February	2012	Airbus A319	FA02A,B	Hobart to Wilkins Aerodrome and return
14	February	2012	Airbus A319	FA03A,B	Hobart to Wilkins Aerodrome and return
18	February	2012	Airbus A319	FA04A,B	Hobart to Wilkins Aerodrome and return

International icebreaker activities

Germany

RV Polarstern began its 29th Antarctic season in October. Over 200 scientists and technicians from 14 countries will take part in the five expedition legs, from Bremerhaven, to Cape Town, then to Neumayer Station III and the Southern Ocean.

China

Xuelong (Snow Dragon) departed Shanghai in November for a six-month Antarctic expedition, to resupply two stations. One team will visit Kunlun, which is located at the highest point on the Antarctic continent, 4,093 metres above sea level. China will launch a new icebreaker in the 2013 season, to join the Xuelong in marine research and resupply.

USA

The Military Sealift Command has purchased a tanker renamed the Maersk Peary. A chemical products tanker, it will deliver fuel to McMurdo Station Antarctica in January 2012 and later to Thule Air Force Base, Greenland.

Britain

HMS Protector, a Royal Navy Ice Patrol Vessel, will help enforce Antarctic Treaty regulations to ensure the Antarctic environment is fully protected from exploitation. The ship is leased from Norwegian company G C Rieber Shipping.

Russia

A new research vessel, Akademik Treshnikov, was recently launched in St Petersburg. Built for the Antarctic Russian mission, the vessel will provide communication between polar stations and field bases and deliver expeditioners and supplies to their bases.

A Russian icebreaker will be assisting USA this year because Sweden's Odin could no longer be of service. The Vladimir Ignatyuk will be escorting convoys of cargo ships to US research stations.

Korea

The Araon departed Korea in October for a five-month Antarctic voyage, visiting King Sejong Station, the new Korean base, Jang Bogo, and the Amundsen Sea.

Chile

Almirante Viel, the Chilean Navy's icebreaker will be decommissioned in four years and Chile is looking for a replacement.

Australia

A search is on for a replacement for Aurora Australis, after 110 voyages to the Antarctic.

CSIRO will be replacing Southern Surveyor in the next few years, with the new vessel expected to spend 300 days per year at sea, rather than 130.

Concordia Station and the last flight over Antarctica by Space Shuttle Atlantis. Courtesy Klaus Arne Pedersen.



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Shipping

1-27	December	2011	Spirit of Enderby		Heritage Expeditions 'Mawson Centennial' expedition departs Hobart
1-20	December	2011	Orion	T3	Centenary Voyage 1 departs Hobart
2-27	December	2011	Akademik Shokalskiy	T4	Aurora Expeditions Centenary Voyage 1 departs Hobart
2	December	2011			Flotilla for centenary reenactment of departure of Mawson's SV Aurora from Hobart
3	December	2011	Aurora Australis	V2	Departs for Casey Station
7	December	2011	Kapitan Khlebnikov		Arrives Hobart
12-20	December	2011	Aurora Australis	V2	Casey Station
21	December	2011	L'Astrolabe	R1	Departs Hobart for Commonwealth Bay
28	December	2011	Akademik Shokalskiy		Aurora Expeditions Centenary Voyage 2 departs Hobart
29-31	December	2011	Aurora Australis	V2	Arrives Hobart, departs for marine science
3	January	2012	Orion	T5	Departs Hobart for Macquarie Island
3-4	February	2012	Italica		Arrives Hobart
7-12	January	2012	Aurora Australis	V3	Commonwealth Bay
16-17	January	2012	Orion	T5	Macquarie Island
16-7	January-February	2012-2012	Aurora Australis	V3	Marine science
21	January	2012	Orion	T5	Bluff NZ
23	January	2012	Akademik Shokalskiy	T6	Departs Hobart for Macquarie Island
27-28	January	2012	Akademik Shokalskiy	T6	Macquarie Island
8-10	February	2012	Aurora Australis	V4	Arrives Fremantle, WA, departs for Mawson Station
16	February	2012	L'Astrolabe	R2	Commonwealth Bay
18	February	2012	Akademik Shokalskiy	V6	Arrives Hobart
22-1	February-March	2012-2012	Aurora Australis	V4	Mawson Station
8	March	2012	L'Astrolabe	R2	Arrives Hobart
13-15	March	2012	Aurora Australis	V4	Arrives Hobart, departs for Davis Station
27-29	March	2012	Aurora Australis	V5	Davis Station
3-5	April	2012	Aurora Australis	V5	Casey Station
14-16	April	2012	Aurora Australis	V6	Arrives Hobart. Departs for Macquarie Island
19-27	April	2012	Aurora Australis	V6	Macquarie Island
30	April	2012	Aurora Australis	V6	Arrives Hobart. Off-hire

The Masters on Aurora Australis will be Murray Doyle and Scott Laughlin

The Masters on L'Astrolabe will be Benoit Hebert and Stanislas Zamora.

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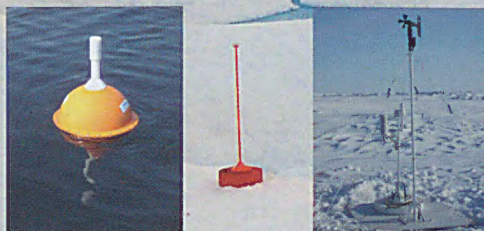


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